

Army Digital Education Survey



5th Brigade, 2nd Infantry Division
Stryker Brigade Combat Team

06 July 2010

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Analytic Overview

Survey Purpose: Determine if Army Institutions have prepared 5/2 ID (SBCT) Soldiers to use digital systems.

- **Respondent Characteristics**
- **Use of Digital Systems**
- **Operational Issues**
- **Training on Digital Systems**
- **Results Summary**

Survey data included prior and existing knowledge, use, and training related to digital systems in general, and more specifically: FBCB2-BFT, FBCB2-EPLRS, TIGR, CPOF, and MCS.

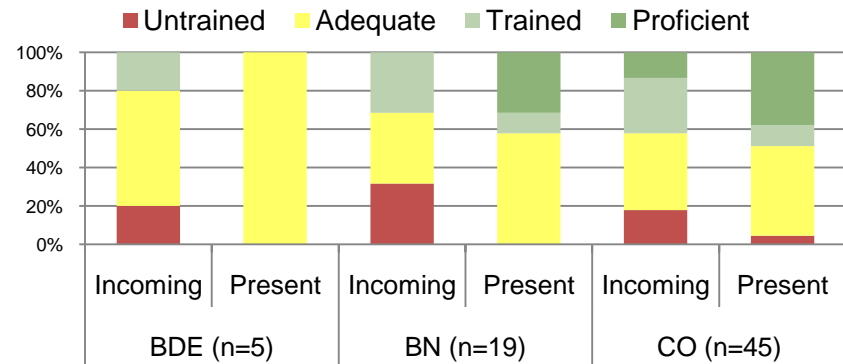
Respondent Characteristics

- 69 Respondents (~36% response rate) – 5 BDE, 19 BN, and 45 CO.
 - 36 Officers (10 Field Grade and 26 Company Grade).
 - 33 NCOs/Enlisted (17 Senior NCO, 12 Junior NCO, 4 SPC).
 - 9 duty positions represented: CDR, Staff, OPNS NCO, Battle CPT/NCO, 1SGT, COIST, PL, PSG.
- 48% familiar with digital systems in general, and 20% specialized.

Familiarity	BDE	BN	CO
Less than Familiar	40%	37%	29%
At least Familiar	60%	47%	47%
Specialized	--	16%	24%

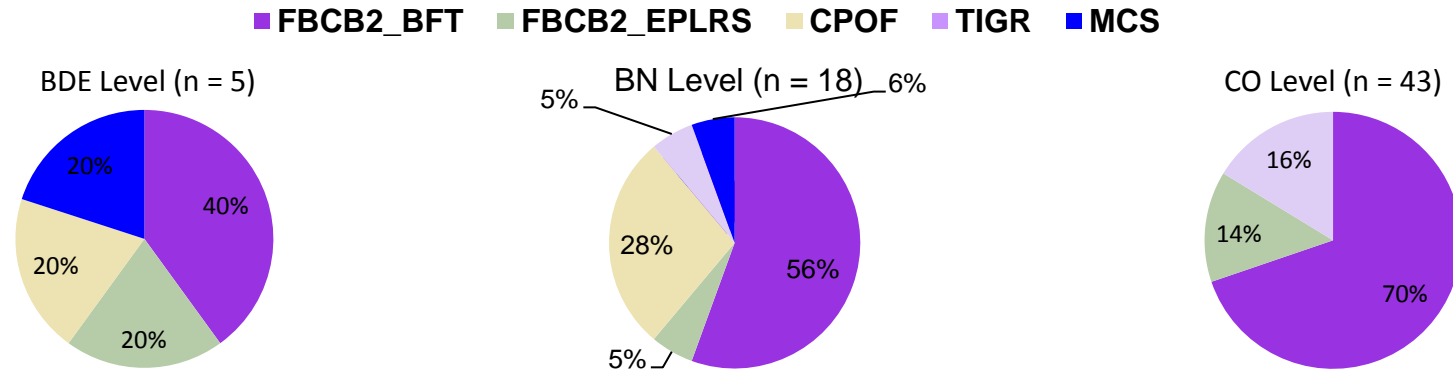
- 52% gained knowledge of digital systems OTJ (39% no change).

OTJ Knowledge Δ	BDE	BN	CO
Gain	40%	68%	47%
No Change	60%	21%	44%

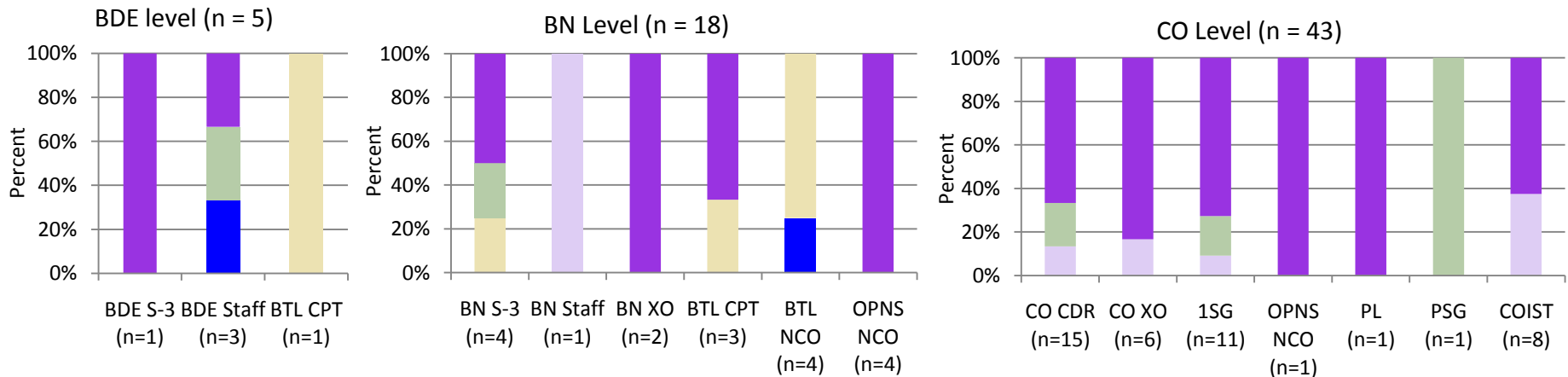


Use of Digital Systems (1 of 2)

- Up to 4 digital systems employed by an individual at BDE and CO levels and up to 5 at BN.
- FBCB2-BFT is the most used system across echelons, followed by CPOF, FBCB2-EPLRS, TIGR, and MCS.

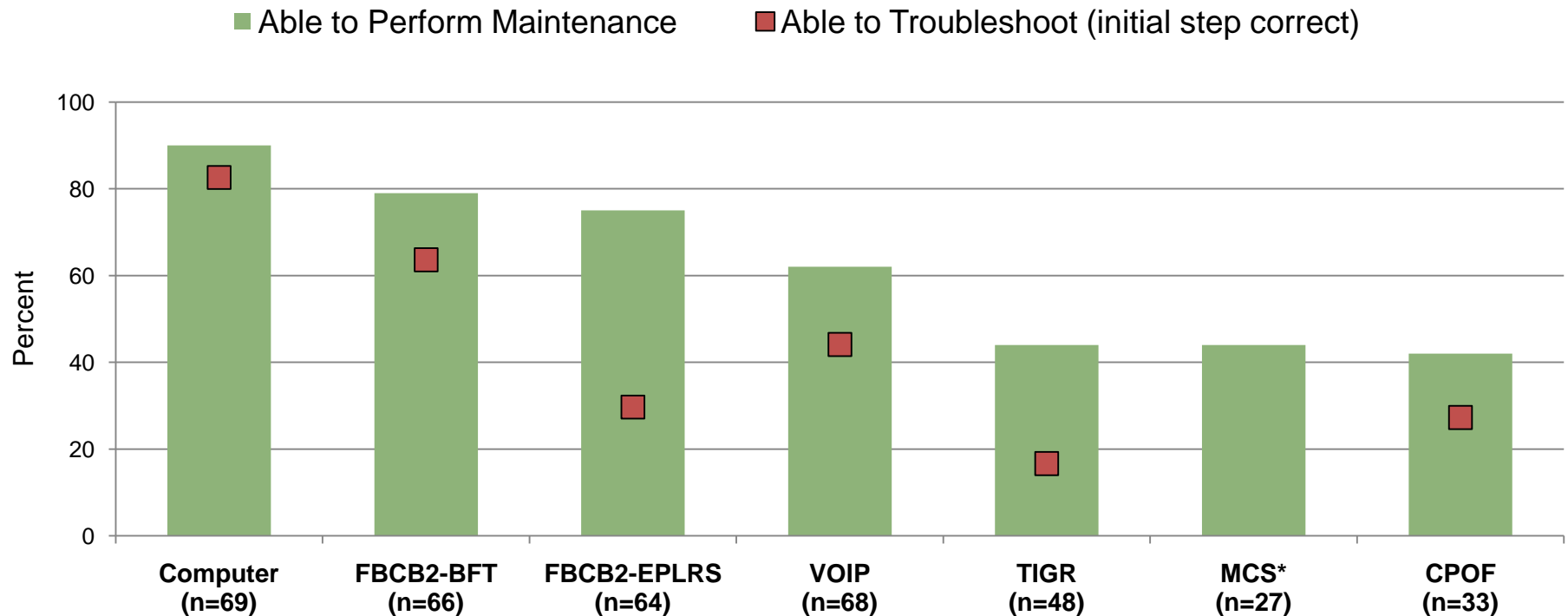


- Systems most used differed by echelon and duty position.



Use of Digital Systems (2 of 2)

Soldiers may not be able to perform maintenance or troubleshooting procedures on their digital systems.



* Missing data on troubleshooting

Operational Issues

Majority (78%) indicated overall systems are working.

Overall	<ul style="list-style-type: none"> • Need to be more compatible with one another (2). • Need to be upgraded to work faster. • Frequent unexpected outages can result in loss of data. • Replace CPOF, TIGR, and CIDNE with Google Earth, and use Falcon View due to availability of updated imagery (2).
FBCB2-BFT	<ul style="list-style-type: none"> • Can be a delay in messages sent/received. Timing not ideal for MEDEVAC and contact reports. Anything time sensitive needs to be relayed through SATCOM radio (3). • Down for days while you travel from a COP to KAF in order to get hard drive reimaged. • Link issues in certain locations. BFT with the vehicles can sometimes be hit or miss (2).
FBCB2-EPLRS	<ul style="list-style-type: none"> • Cannot be relied on in our current AO, terrain limited (LOS issues) (3). Does not have a large 'bubble' so that is only applicable to platoons internal. Our battle-space is too large for it to work as advertised. Limited due to EPLRS net. Works as long as the elements needed are within the ELPRS bubble. "Bubble" limitations have caused us to rely on BFT over the more responsive and classified EPLRS (10). • Does not talk to BFT, making communication more difficult. • At times issues with keeping systems networked and populating with Land Warrior (2). • Needs update to GUI so more attractive for a younger usage group.
CPOF	<ul style="list-style-type: none"> • Needs up to date imagery and in some areas of the BDE AO it does not have any imagery. Needs more icons. • Needs improved compatibility than other user interfaces.
TIGR	Loads much slower due to recent upgrades.
MCS	Only used to save FBCB2 FIPR.
Others	Land Warrior: negatives outweigh the positives, limited due to EPLRS net (2).

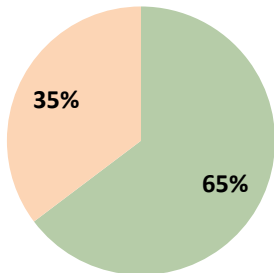
Training on Digital Systems

Collective training better prepared Soldiers for their duty positions than did institutional training.

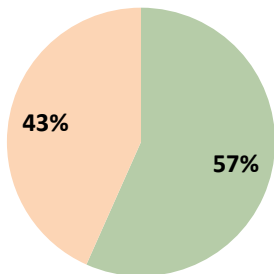
Collective Training

Officers

HST (n=34)

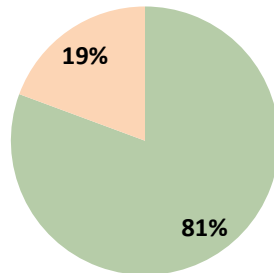


CTC (n=30)

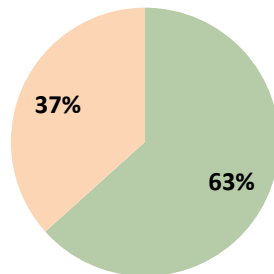


NCO/Enlisted

HST (n=31)



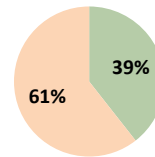
CTC (n=30)



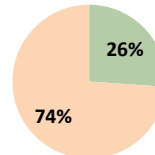
Institutional Training

Officers

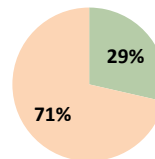
OBC (n=33)



CCC (n=23)

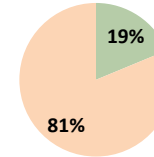


ILE (n=7)

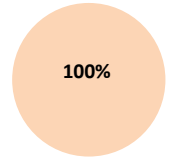


NCO/Enlisted

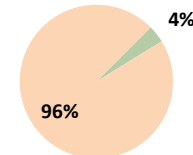
BT (n=32)



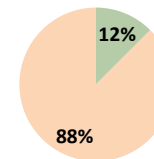
AIT (n=30)



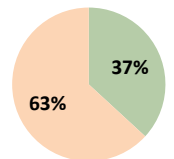
PLDC (n=27)



BNCOC (n=24)



ANCOC (n=19)



Prepared



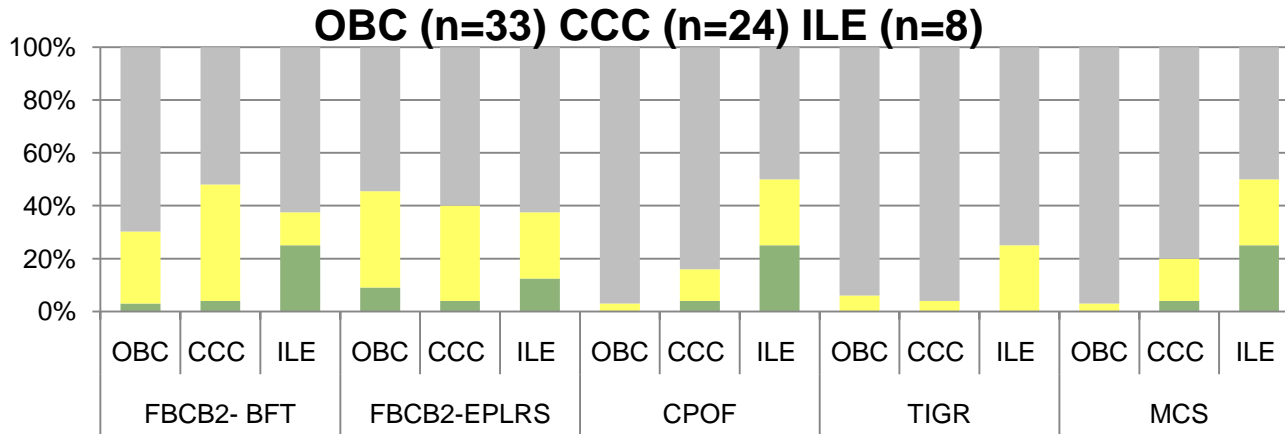
Not Prepared

Amount of Training on Digital Systems (1 of 2)

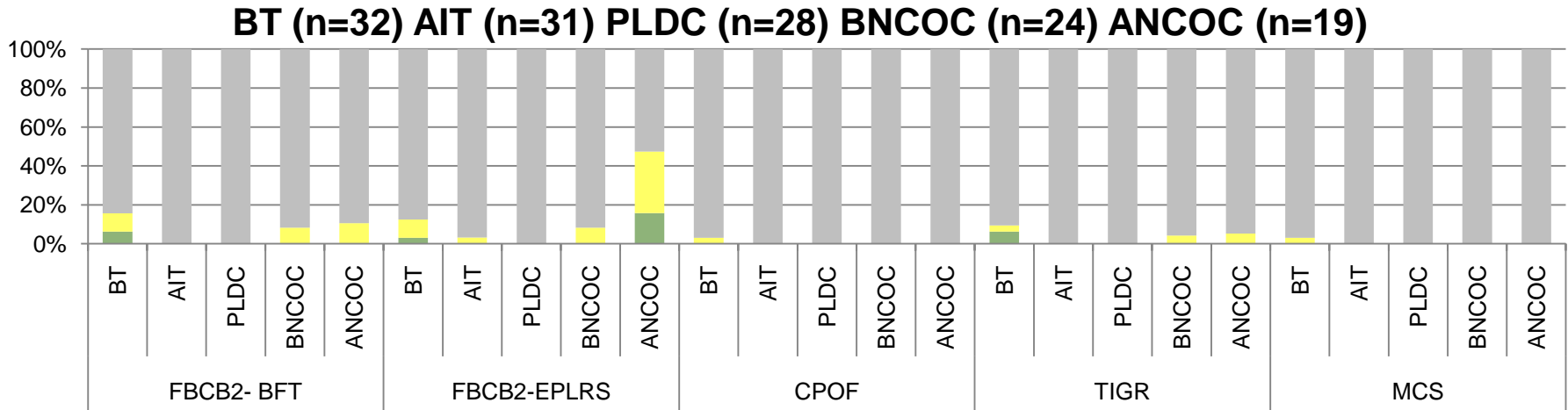
Institutional

None Average & Below Above Average

Officer



NCO/Enlisted



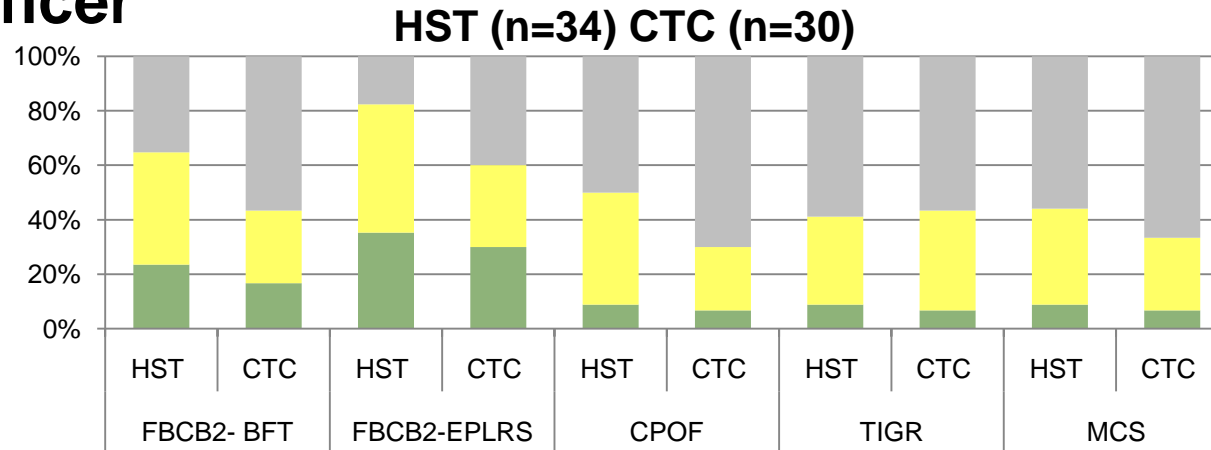
Individual training was lacking.

Amount of Training on Digital Systems (2 of 2)

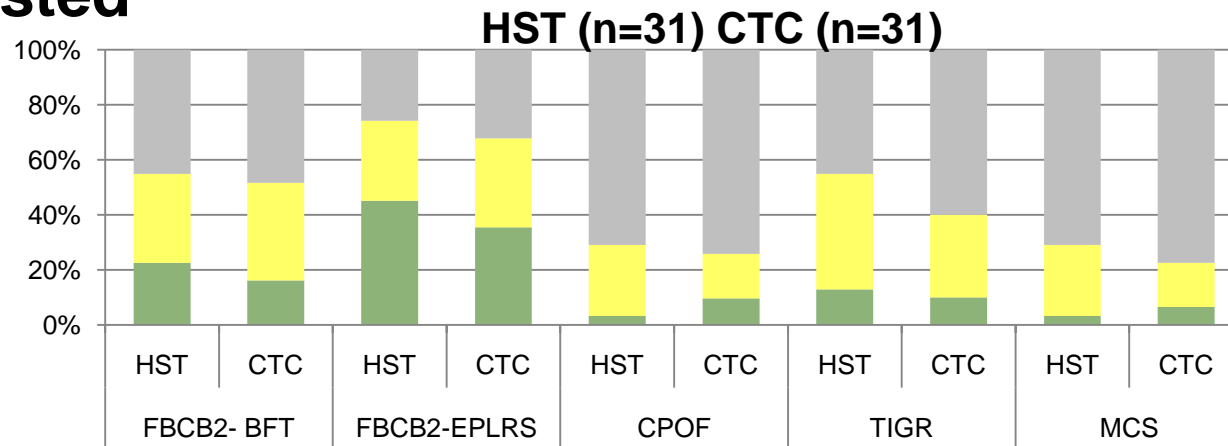
Collective

■ None ■ Average & Below ■ Above Average

Officer



NCO/Enlisted



Although the amount of collective training improved over individual training, it too was lacking.

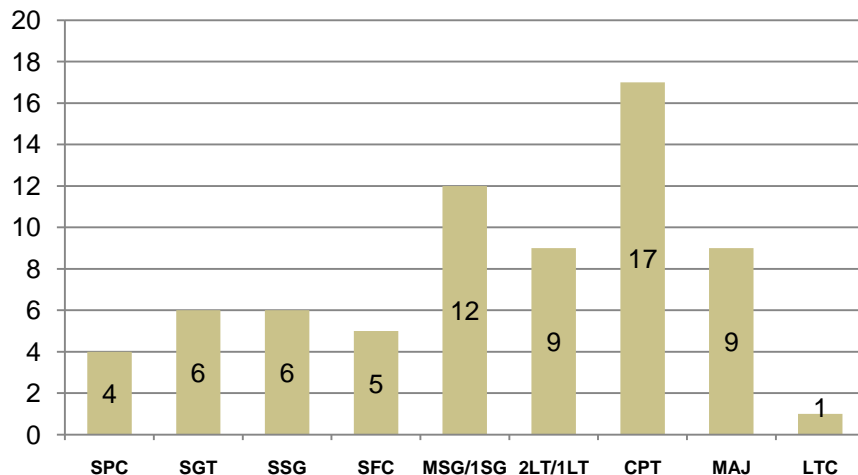
Results Summary

- **Home Station Training and Combat Training Centers better prepared Soldiers for employment of digital systems than Institutional training.**
- **Training on digital systems is not consistently provided throughout Soldiers' Professional Military Education.**
 - **More training is needed for Soldiers to be self-sufficient at maintaining and troubleshooting systems.**
 - **Soldiers are learning how to use digital systems on-the-job (OJT), but it is not sufficient to close the training gap.**

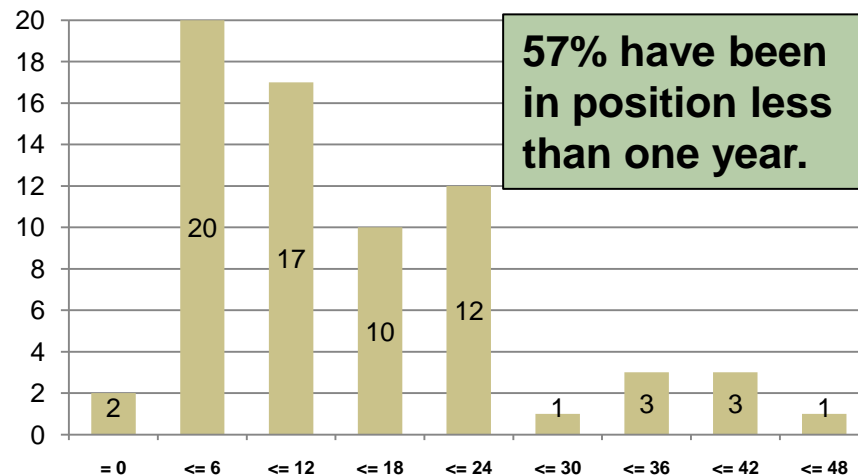
Demographics

Demographic Data

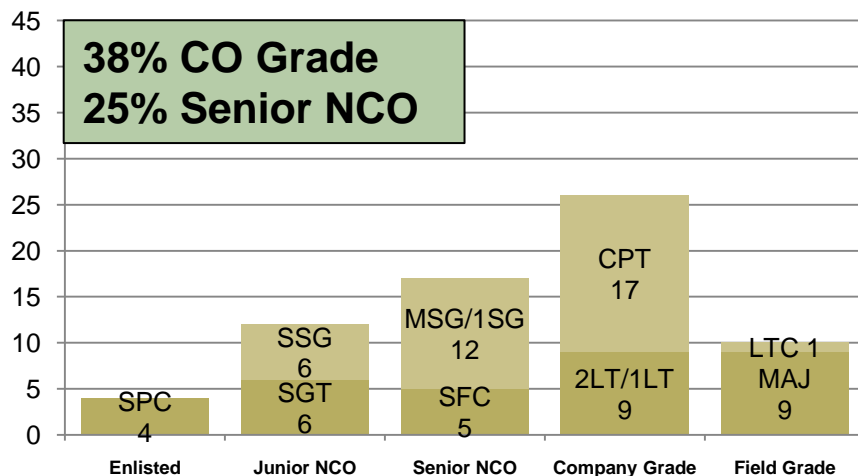
Rank



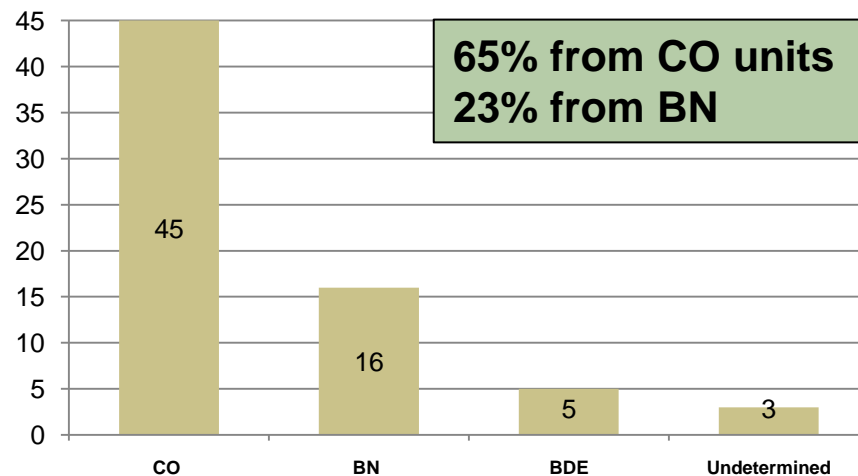
How long have you been assigned to your current position?
Months in Position



Rank



Echelon



Breakout of the 69 Respondents

	BDE		BN					CO			
Duty Position	LTC/ MAJ	CPT/ LT	LTC/ MAJ	CPT/ LT	1SG/ MSG/ SFC	SSG/ SGT	SPC	MAJ/C PT/ LT	1SG/ MSG/ SFC	SSG/ SGT	SPC
BDE S-3	1										
BDE Staff	3										
BN XO			2								
BN S-3			3	1							
BN Staff/ OPNS NCO					2	2	1			1	
BTL CPT/NCO		1		3	2	3					
CO CDR								15			
CO XO								6			
1SG									13		
COIST										5	3
PL								1			
PSG										1	

Range of Time (months) in Duty Position

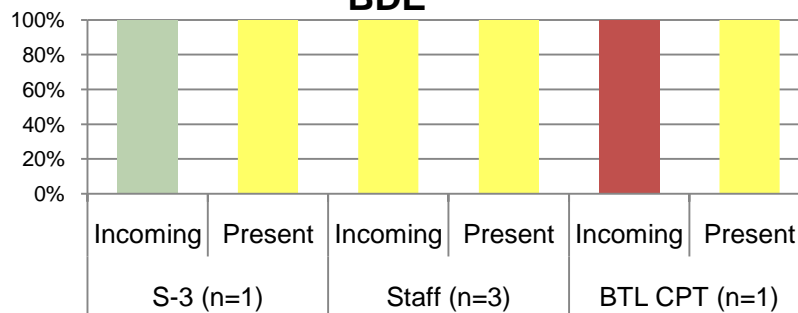
	BDE		BN					CO			
Duty Position	LTC/ MAJ	CPT/ LT	LTC/ MAJ	CPT/ LT	1SG/ MSG/ SFC	SSG/ SGT	SPC	MAJ/C PT/ LT	1SG/ MSG/ SFC	SSG/ SGT	SPC
BDE S-3	5								0-42		
BDE Staff	10-12										
BN XO			5-14								
BN S-3			1-25								
BN Staff/ OPNS NCO					5-6	4-24	36			24	
BTL CPT/NCO		2		1-36							
CO CDR								0-32			
CO XO								5-11			
1SG											
COIST										4-48	10-17
PL								3			
PSG										2	

Detail Slides

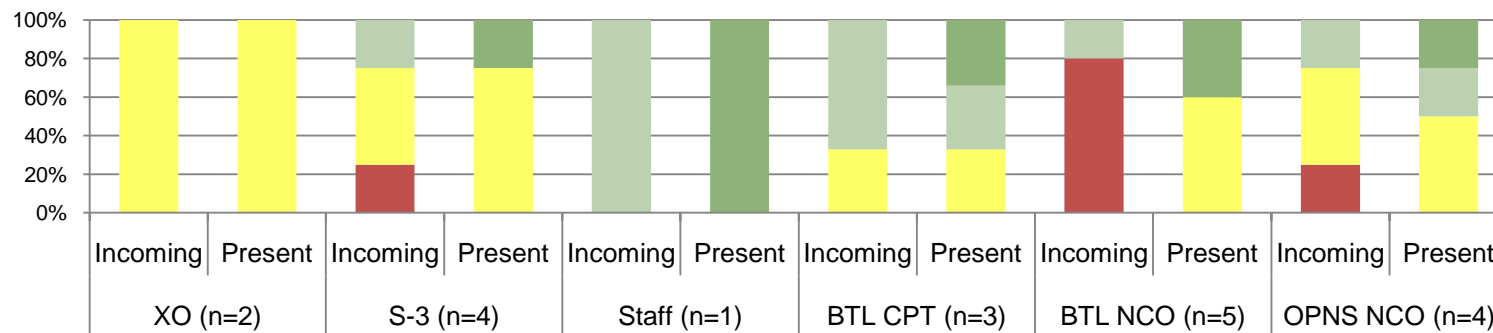
OTJ Gain in Knowledge of Digital Systems

Untrained Adequate Trained Proficient

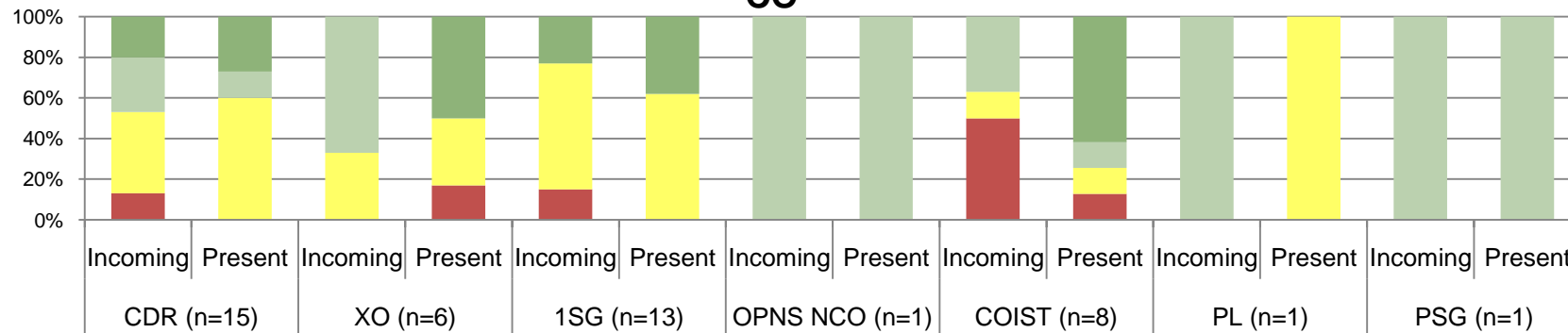
BDE



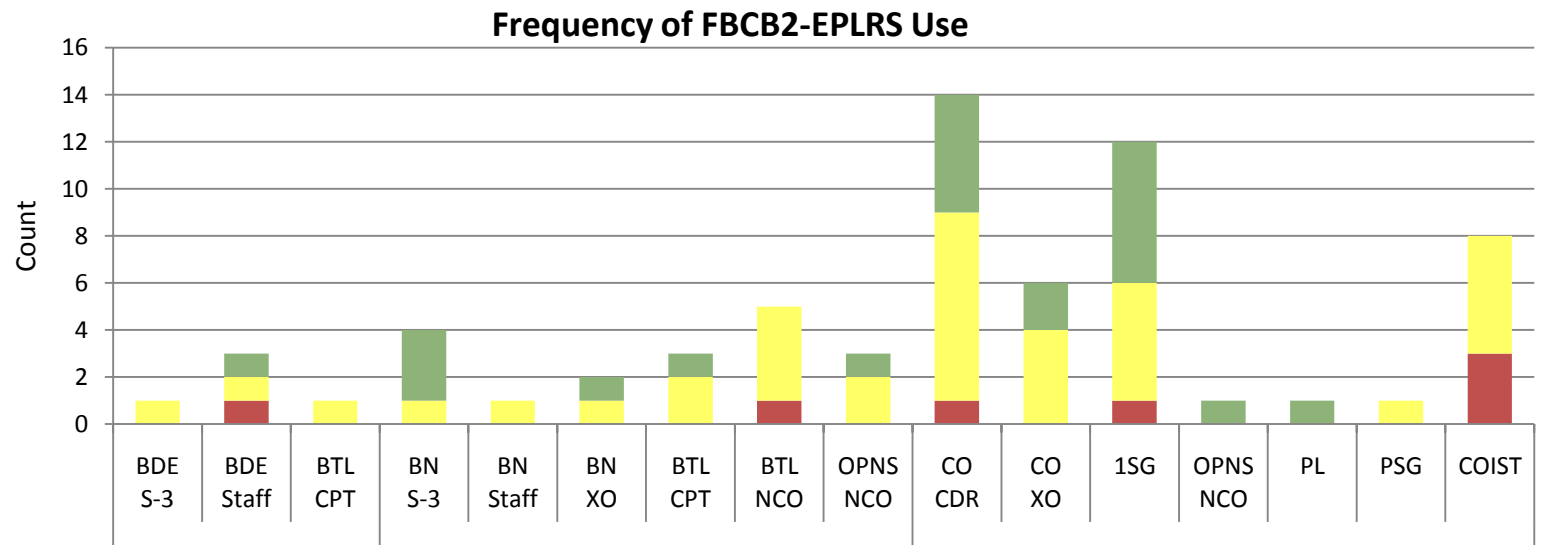
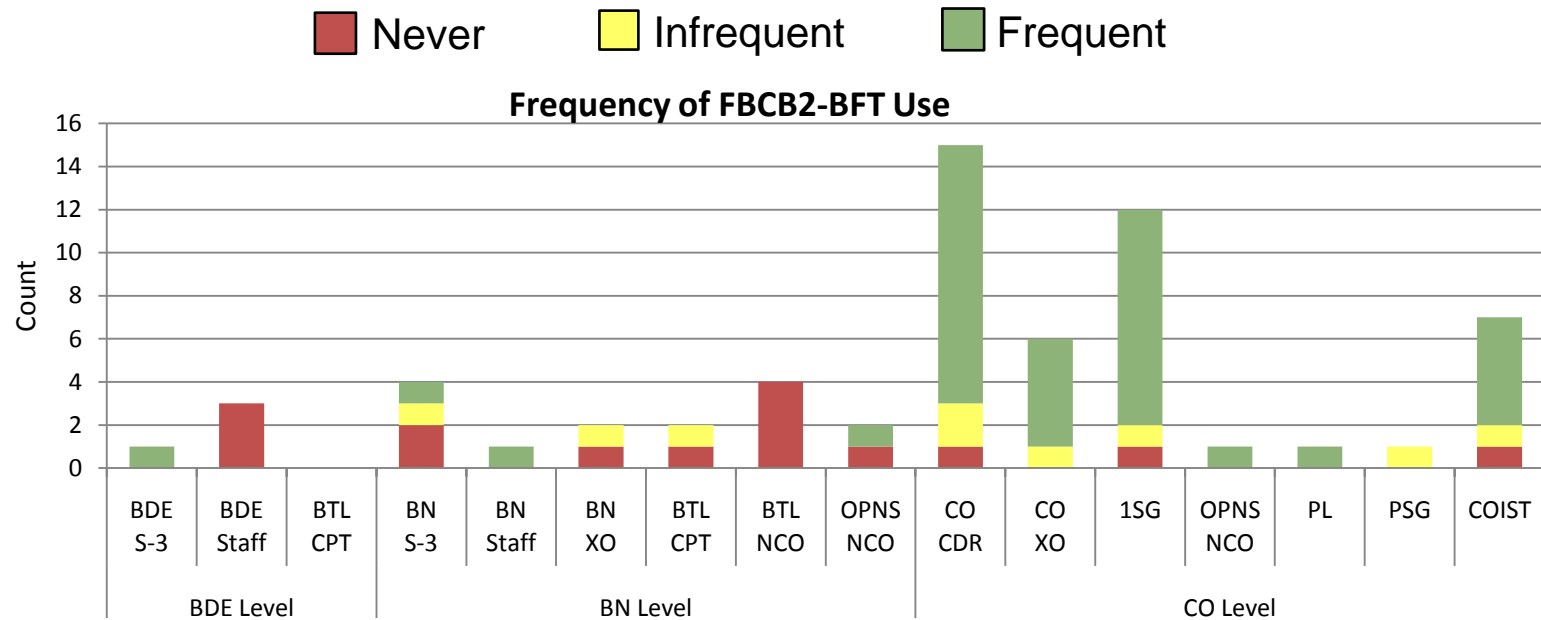
BN



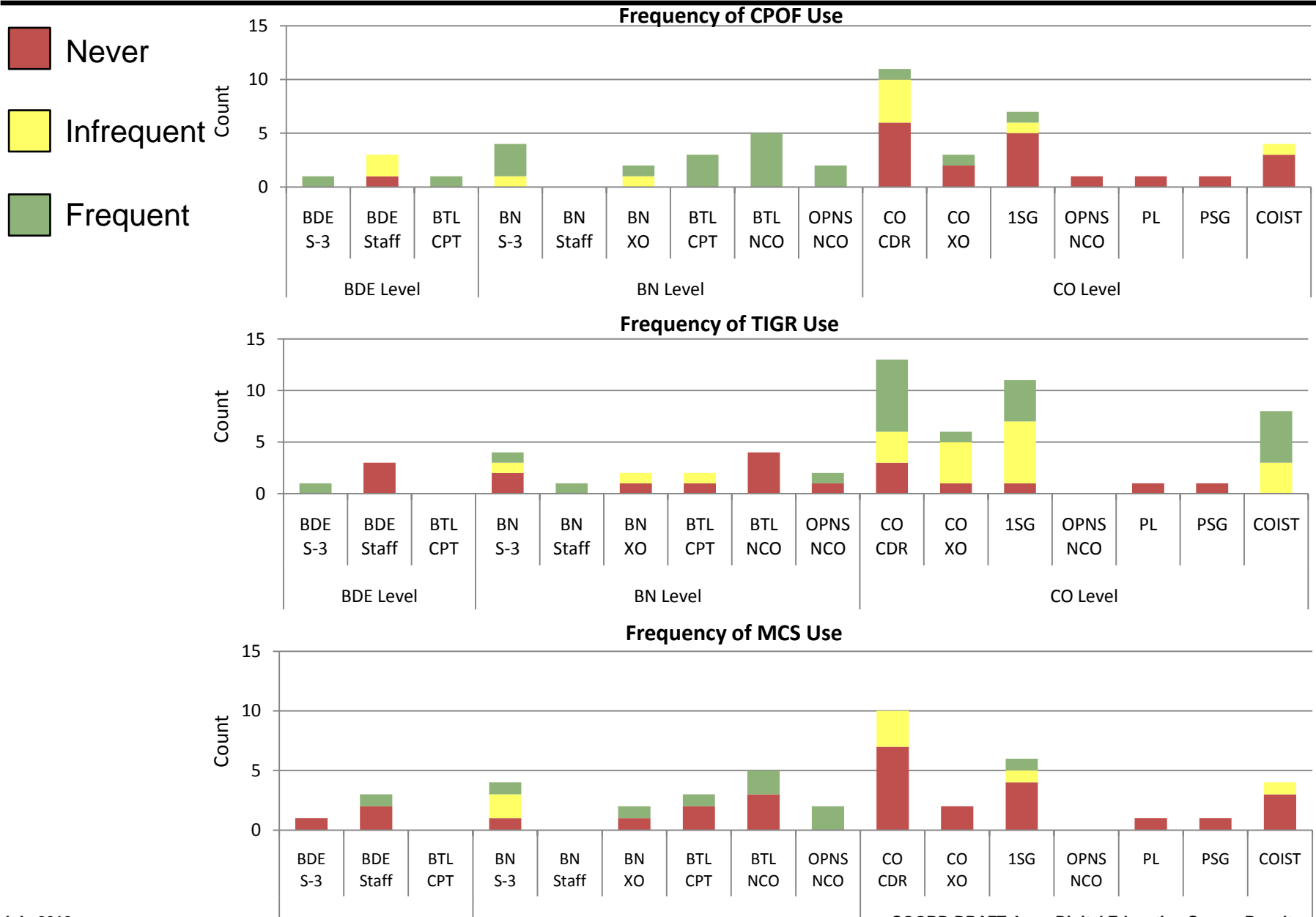
CO



System Use by Duty Use by Echelon (1 of 2)



System Use by Duty Use by Echelon (2 of 2)

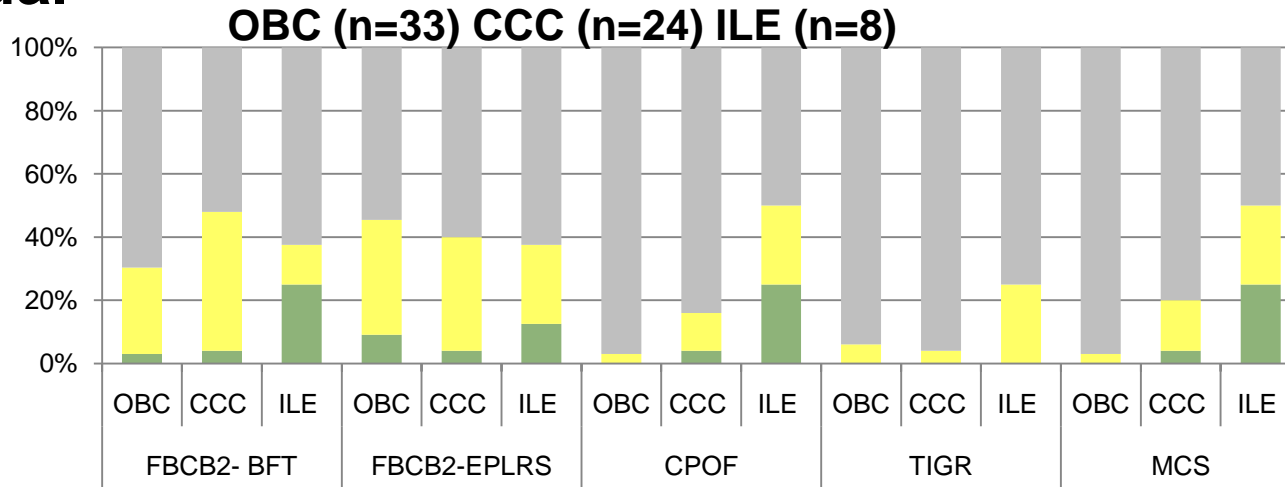


Amount of Training on Digital Systems (1 of 2)

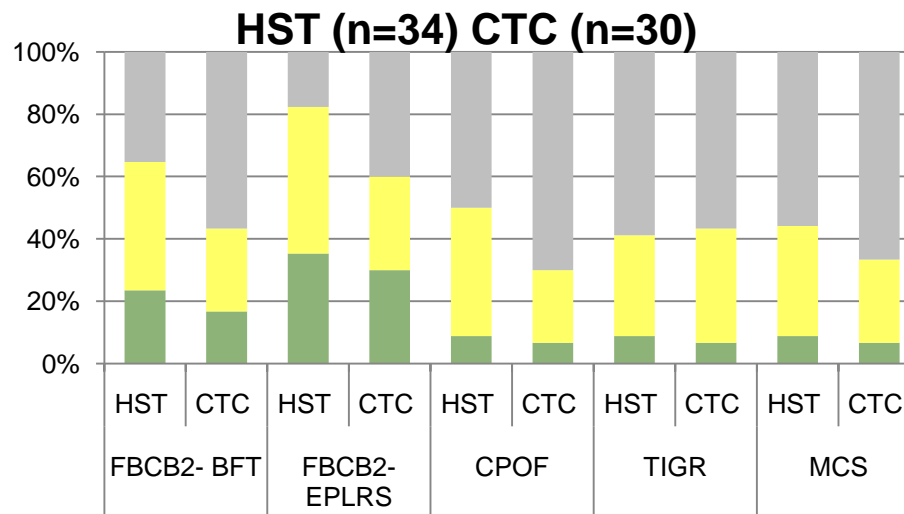
Officer

None Average & Below Above Average

Individual



Collective



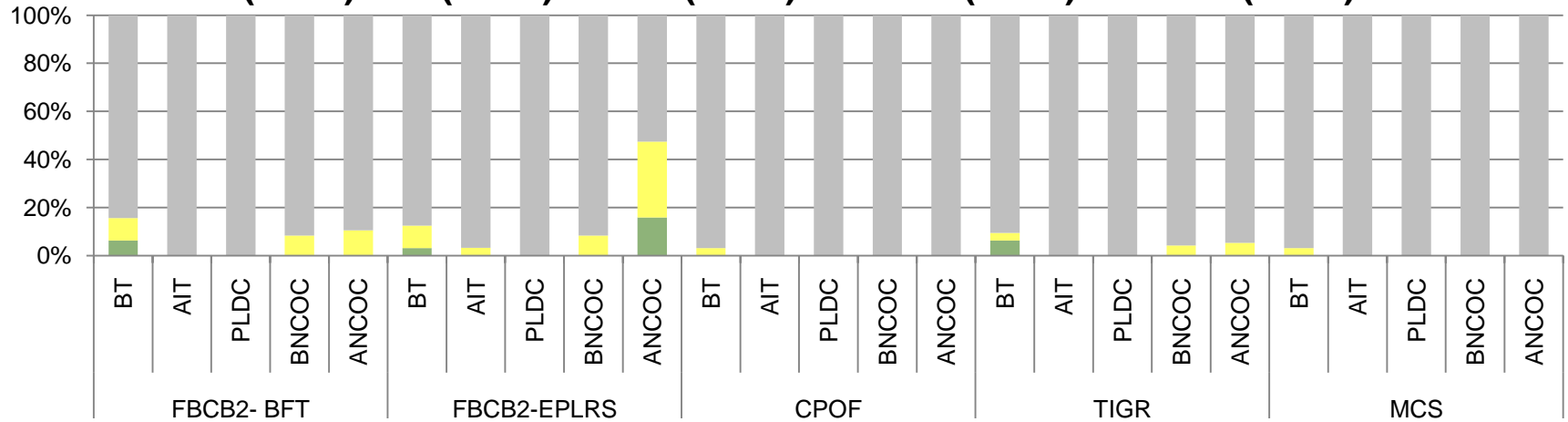
Amount of Training on Digital Systems (2 of 2)

NCO/Enlisted

None Average & Below Above Average

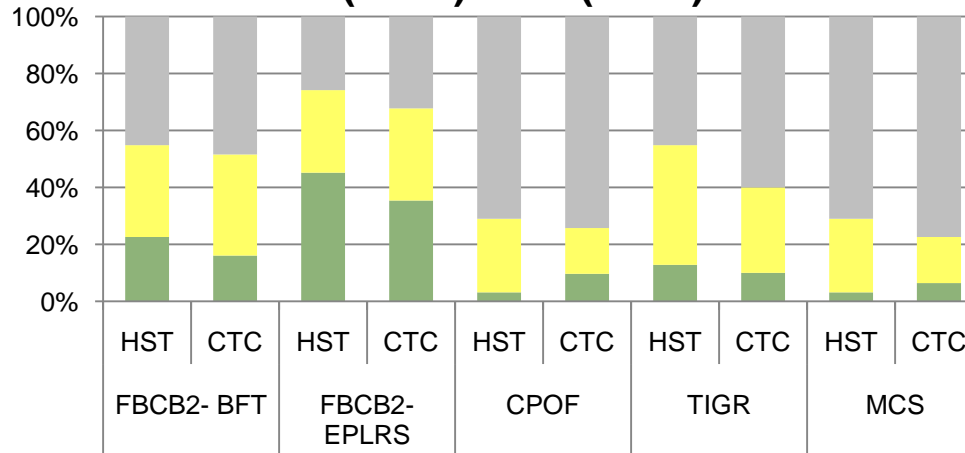
Individual

BT (n=32) AIT (n=31) PLDC (n=28) BNCOC (n=24) ANCOC (n=19)



Collective

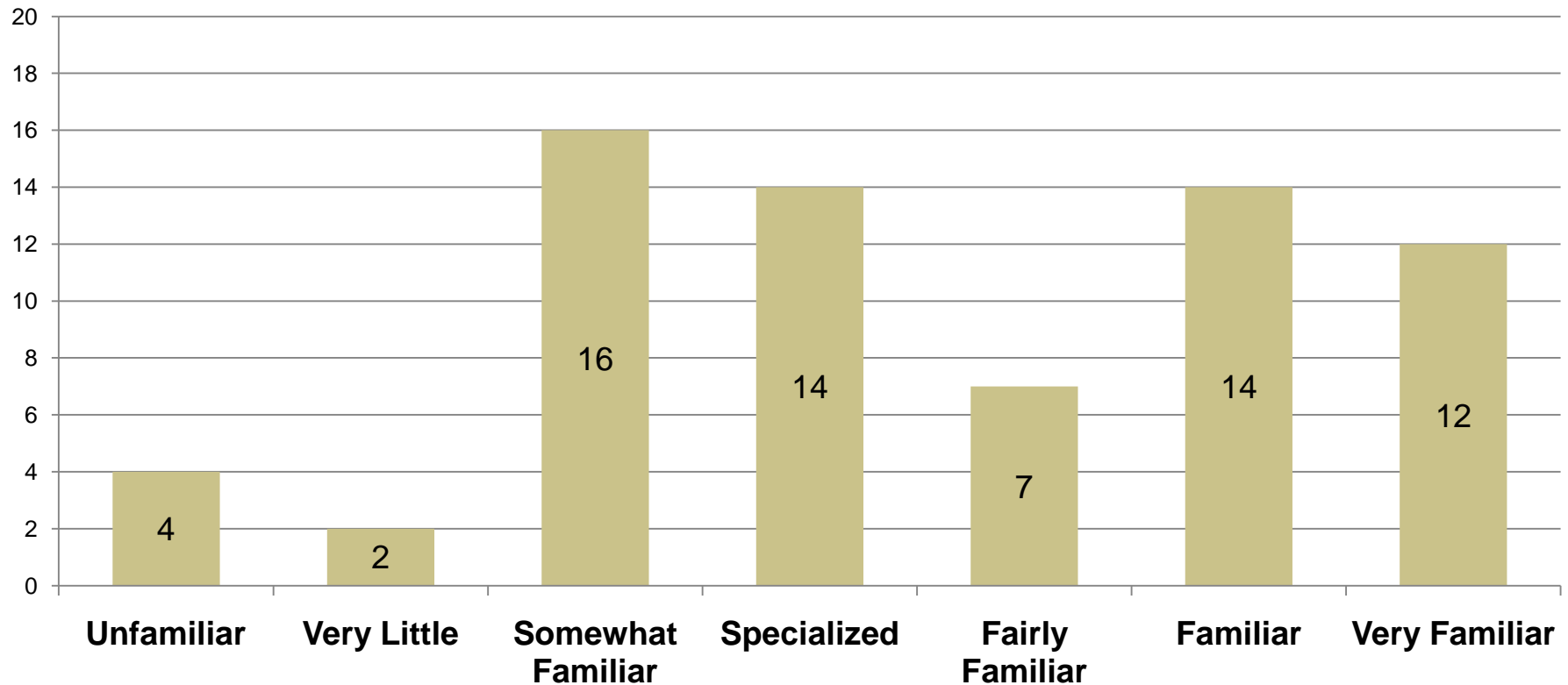
HST (n=31) CTC (n=31)



Familiarity - Grouped Responses (1 of 3)

How would you assess your familiarity with the Army's Battle Command Systems?

**How would you assess your familiarity
with the Army's Battle Command Systems?**



48% of the respondents self-assessed as at least “fairly familiar” with the digital systems in general.
20% of the respondents self-assessments indicated a more specialized familiarity.

*Note: These categories were assigned by the analyst based upon the word responses to the question.
The actual responses are detailed in the following slides.*

Familiarity - Actual Responses (2 of 3)

How would you assess your familiarity with the Army's Battle Command Systems?

- **Unfamiliar (6%)**
 - Not
 - Unfamiliar
 - Small amount
 - Not very familiar
 - Little to no experience
 - Have minimal time on command systems
- **Very Little (3%)**
 - Only have familiarity with TIGR.
 - Very little familiarity with all but TIGR. I am very familiar with TIGR.
- **Somewhat Familiar (23%)**
 - Marginal
 - Somewhat (3)
 - Somewhat familiar (5)
 - Somewhat proficient
 - Semi familiar
 - Fairly familiar (2)
 - Fair
 - I am somewhat familiar with the systems.
 - It has continued to grow as new systems and upgraded software comes out to help better SA for the unit
- **Fairly Familiar (10%)**
 - Fairly familiar
 - General Knowledge
 - Fairly good understanding of the systems
 - I have a working knowledge of most systems.
 - I'm familiar with their employment, not as familiar with their operation.
 - Moderately familiar; mostly OJT since assuming duties as battle captain
 - I am moderately familiar with the ABCS and have some training on the systems.
- **Familiar (20%)**
 - Good (3)
 - Decent
 - Trained
 - Average
 - Familiar (3)
 - Intermediate
 - I am familiar
 - Pretty familiar
 - I am familiar enough with them, but not an expert
 - I am familiar with most systems with my level of expertise varying from system to system.
- **Very Familiar (17%)**
 - Very well (2)
 - Very familiar (3)
 - Above average
 - Moderate-high
 - I am very familiar the ABCS.
 - I am very familiar with them.
 - I am very familiar with the ABCS systems
 - I feel well versed in their application and use.
 - I have used all or parts of the system for many years.

Familiarity - Actual Responses (3 of 3)

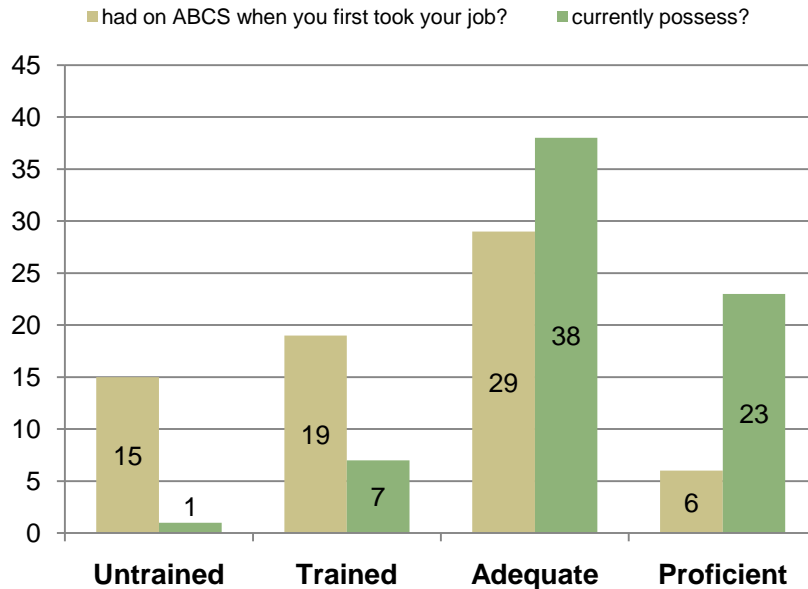
How would you assess your familiarity with the Army's Battle Command Systems?

- **Specialized (20%)**

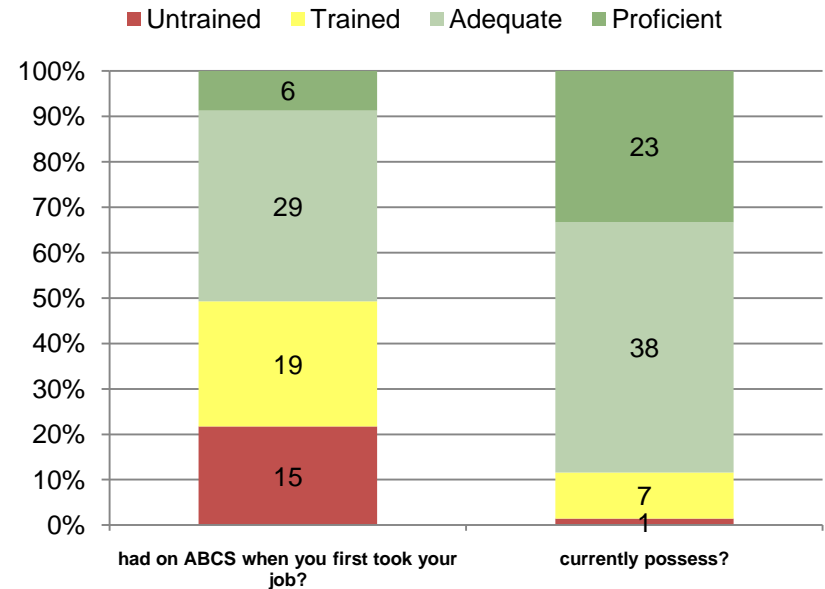
- Use BFT and FBCB2 daily.
- I use FBCB2 and BFT often.
- I very familiar with FBCB2 and TIGR.
- Only familiar with those that are used on a daily basis.
- I am familiar with the systems used at the Troop Level.
- Familiar with the systems, but only work daily with a couple.
- Have a working knowledge of ABCS outside of the MI equipment.
- Very familiar with some, others no familiarity (never used before)
- Fairly familiar with all systems Company and Below. Marginal familiarity with CPOF and MCS
- Reasonably familiar with the BFT system. Can use it to navigate and communicate on a basic level.
- Very familiar with BFT, and FBCB2 Somewhat familiar with TIGR Not familiar at all with CPOF and MCS
- Familiar with CPOF, BFT and FBCB2. Minimal use of MCS and no use with the BCS3, DCGS-A, and AFATDS.
- I have only utilized the FBCB2 system and am fairly proficient with it, and have some exposure to the MCS.
- Extremely high from the perspective of capability and network engineering. Good from the perspective of systems operation.
- Familiar with Intel systems DCGS-A / ASAS; Familiar with operations systems MCS; Familiar with FBCB2; Received formal training since 2003.

Self-Assessed Knowledge - Incoming versus Present

What level of knowledge would you say you:



What level of knowledge would you say you:



33% of the respondents currently assess themselves as Proficient.

7% also assessed themselves as already Proficient.

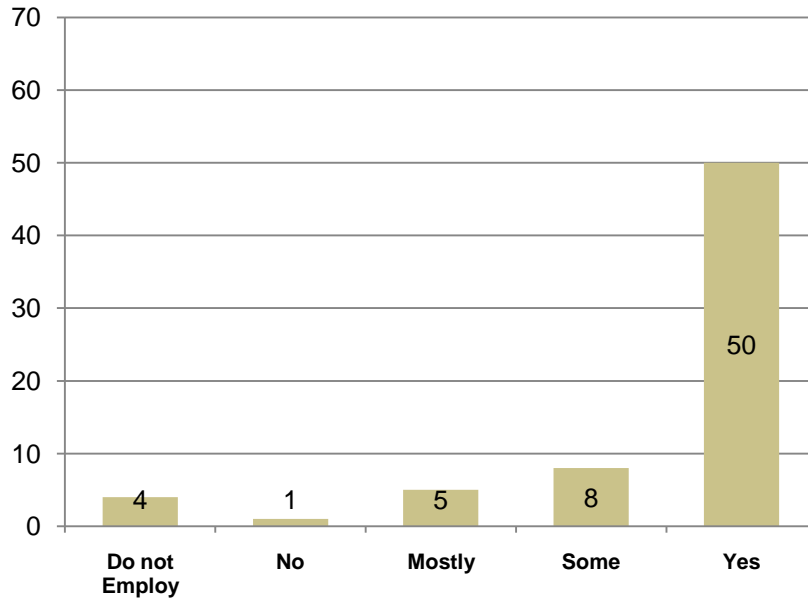
9% also assessed themselves as initially Untrained.

52% of the self-assessments indicated growth of knowledge at the unit.

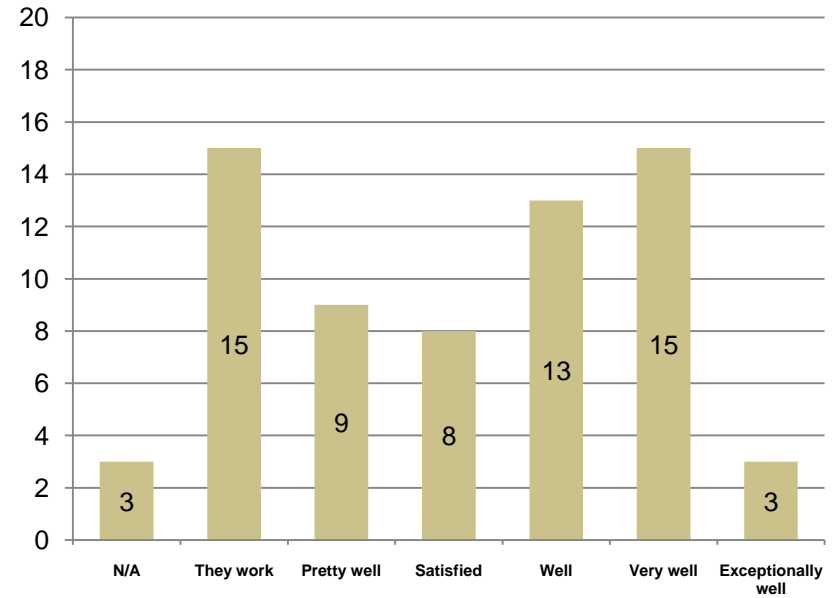
41% indicated no change between their incoming and present self-assessments.

Assessment of Systems - Overview (1 of 2)

Are the Army Battle Command Systems you use working?



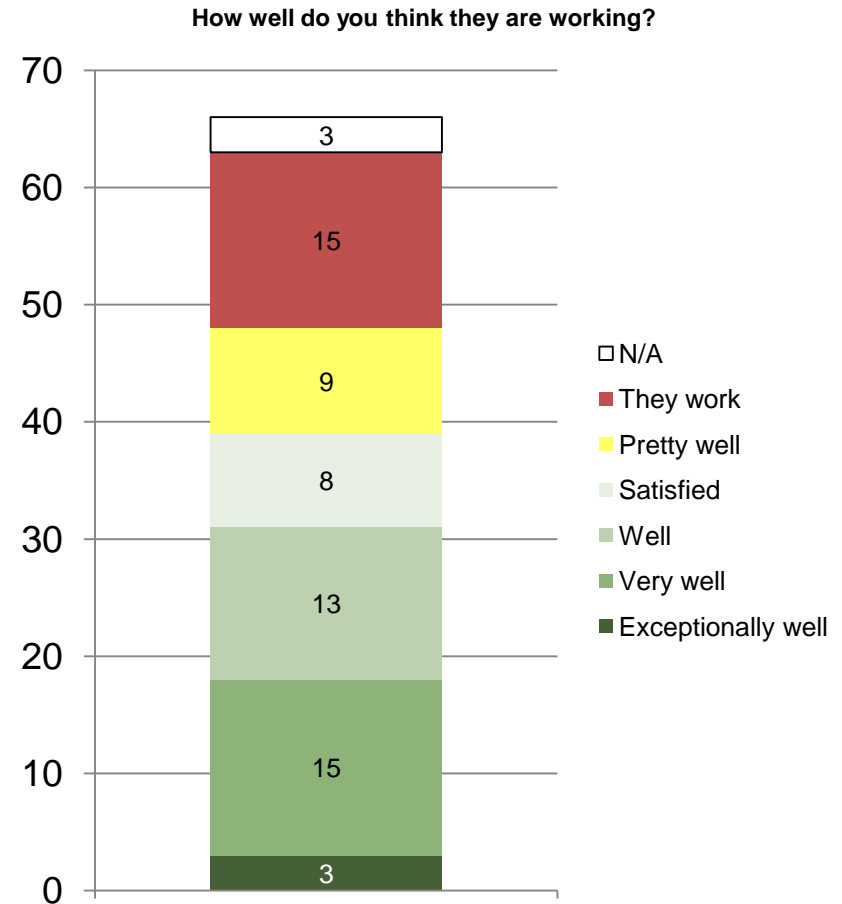
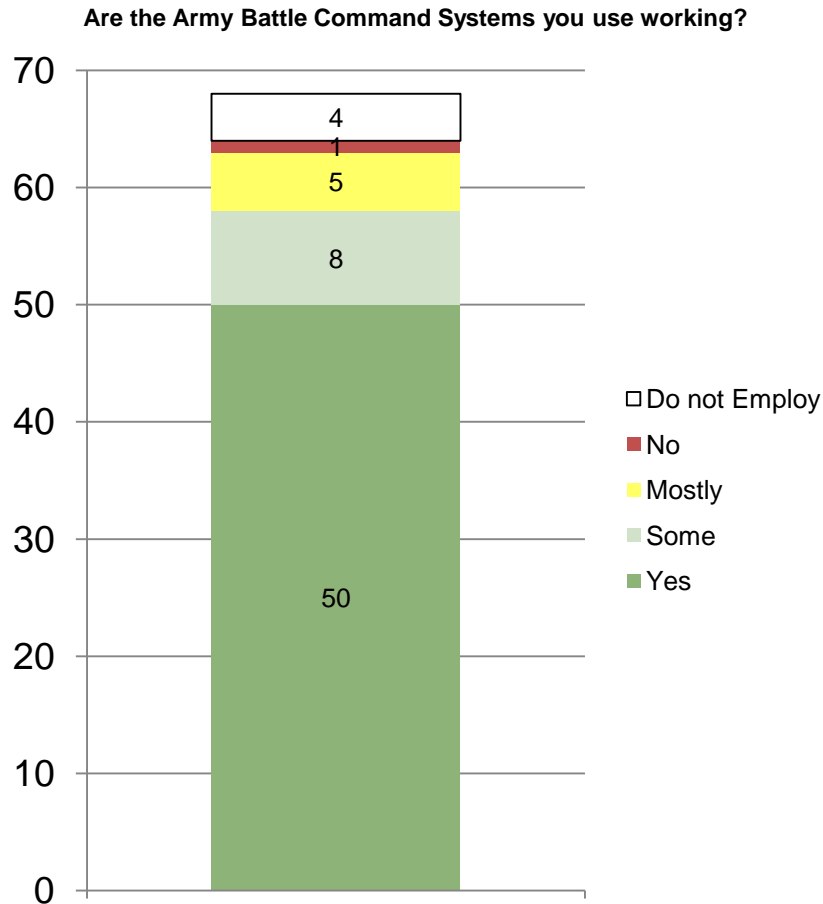
How well do you think they are working?



74% indicated that the systems were working, and 73% assessed the systems as working “Pretty Well” or better.

*Note: These categories were assigned by the analyst based upon the word responses to the question.
The actual responses are detailed in the following slides.*

Assessment of Systems - Overview (2 of 2)



32% assessed the systems as “Satisfactory” or “Well”

27% assessed the systems as working “Very Well” or better.

*Note: These categories were assigned by the analyst based upon the word responses to the question.
The actual responses are detailed in the following slides.*

Assessment of Systems - Actual Responses

Are the Army Battle Command Systems you use working? (1 of 2)

- **Do not employ (6%)**
 - I don't know
 - I am not assigned any
 - My vehicles do not have the command systems
 - AFATDS at the company level is never used in my experience.
 - I think as a BDE we have chosen alternate methods to achieve the same desired end-state offered by ABCS; such as Google Earth COP. The only real capability lost in my opinion is the direct messaging option between Upper TI systems and Lower TI systems, though given the network architecture in Afghanistan, this capability would be suspect at best.
- **No (1%)**
 - No, FBCB2 can not be relied upon in our current AO
- **Mostly (7%)**
 - Most
 - Some times
 - For the most part
 - Yes, but at about 50-60% of the capacity as they did in training.
 - DCGS-A is working although the analysts in my company have stretched it to its limits.
- **Some (12%)**
 - FBCB2 / BFT (2)
 - FBCB2 / BFT / CPOF
 - FBCB2 / BFT / CPOF / MCS
 - BFT / CPOF / MCS / TIGR, and FBCB2 in the rear
 - BFT and TIGR have great applicability and reliability. FBCB2 and LW are limited due to their use of the EPLRS net.
 - They are fairly reliable systems with some exceptions, FBCB2 seems to have issues more than other systems utilized by the company.
 - FBCB2 works... as long as the elements I need to communicate with are within the EPLRS bubble. BFT typically works well, but encounters a lot of issues with sending and receiving messages.

Assessment of Systems - Actual Responses

Are the Army Battle Command Systems you use working? (2 of 2)

- **Yes (74%)**
 - Yes (37)
 - Yes they do
 - Yes they are working
 - Yes, they are working fine.
 - TIGR is working as advertised
 - The systems function correctly
 - The systems that I use do work
 - The ones we use are BFT, CPOF, GCCS-A, ASAS, and AFATDS.
 - Yes when our SIPR connectivity is good the systems function very well.
 - BFT works well in the mountains. Line of sight communications are limited in Afghanistan due to the terrain.
 - Yes, however the fact that FBCB2 and BFT do not talk with one another makes communication that much more difficult.
 - Yes, limitations with the EPLRS bubble have caused us to rely on BFT over the quicker more responsive and classified FBCB2
 - Yes. We use BFT, FBCB2, and TIGR. BFT and TIGR have been invaluable, however we have less SA with FBCB2 as less organizations within the armed forces use the system.

Assessment of Systems - Actual Responses

How well do you think they are working? (1 of 4)

- **N/A (5%)**
 - Don't know
 - I am not assigned any
 - N/A
- **They work (23%)**
 - Fair
 - Fine (2)
 - they are working, to help
 - For the most part they work.
 - FBCB2 is less reliable than BFT
 - They accomplish the goals we set.
 - Everything can always be improved.
 - They work ok, but need to be upgraded to work faster
 - FBCB2 - not good; MCS - not good; CPOF – great; BFT - good
 - As long as the communications is functional, the systems work OK.
 - Hit and miss. Generally pretty stable, but there are frequent, often unexpected outages which can result in loss of data
 - BFT with the vehicles can sometimes be hit or miss and no one wants to use the Land Warrior because the negatives outweigh the positives
 - In our operational environment, the BFT needs to be emplaced in to every vehicle on the battlefield due to the extreme ranges covered by units out here. Most operations are conducted outside the effective range of the EPLRS.
 - FBCB2 requires more ENM support theater wide. BFT is the preferred method of communication if I cannot establish verbal comms with an element. CPOF is decent for tracking the battle, but requires more icons, and more compatibility with other user interfaces. TIGRNet is good, but unfortunately due to recent upgrades, it loads much slower. Recommend that CPOF, TIGR, and CIDNE be replaced by Google Earth, and that Falcon View be utilized more due to the availability of updated imagery.

Assessment of Systems - Actual Responses

How well do you think they are working? (2 of 4)

- **Pretty Well (14%)**

- Fairly well
- Pretty well
- Moderately
- Mostly well
- Pretty Good
- They are working pretty well
- Overall they work pretty well
- MCS is not used at all except to save FBCB2 FIPR. The CPOF does not have up to date imagery and in some areas of the BDE AO it does not have any imagery. As for a reporting tool it works very well. Google Earth is a much more user friendly system but it cannot “drop” SIGACT like CPOF. The FBCB2 does not work in Zabul at all due to LOS issues, in Helmand it works well but the BN relies heavily upon BFT for communication with ground troops.

- **Satisfied (12%)**

- Good
- Decently
- Well enough
- Good, but could be better
- They work fine most of the time
- They are effective to share information from the CO level to BN and to BDE
- They provide the proper people with SA within the C4ISR world to keep commanders informed and allow for timely and informed decisions.
- I think they are working well in terms of meeting the unit's requirements. The FBCB2 icons are populating through the GRE tunnel to BFT and Upper TI COP, that is the BDE's primary utilization of FBCB2, so in that sense ABCS is doing what is asked of it.

Assessment of Systems - Actual Responses

How well do you think they are working? (3 of 4)

- **Well (20%)**
 - Good
 - Well (3)
 - They work well, just not together.
 - FBCB2 works well for missions, TIGR works well for imagery.
 - Works well for communication on convoys and communication to the CP.
 - Good systems that have assisted greatly in combat operations in Afghanistan
 - Each works well individually, but need to be more compatible with one another.
 - BFT is working well and is the primary means of communication of the maneuver platoons.
 - They work well, except for FBCB2 - our battle space is too large for it to work as advertised
 - 90%. Have issues with FBCB2 at times, keeping systems networked, populating with Land Warrior, etc. BFT has link issues as well in certain locations.
 - FBCB2 works well. Could be improved as far as GUI (graphic user interface) with a more up-to-date interface that is more attractive for a younger usage group.
 - BFT works well, but the timing is not ideal for MEDEVAC and contact reports. This means that routes, administrative, or low importance traffic is great for the BFT. However, anything time sensitive needs to be relayed through SATCOM radio.

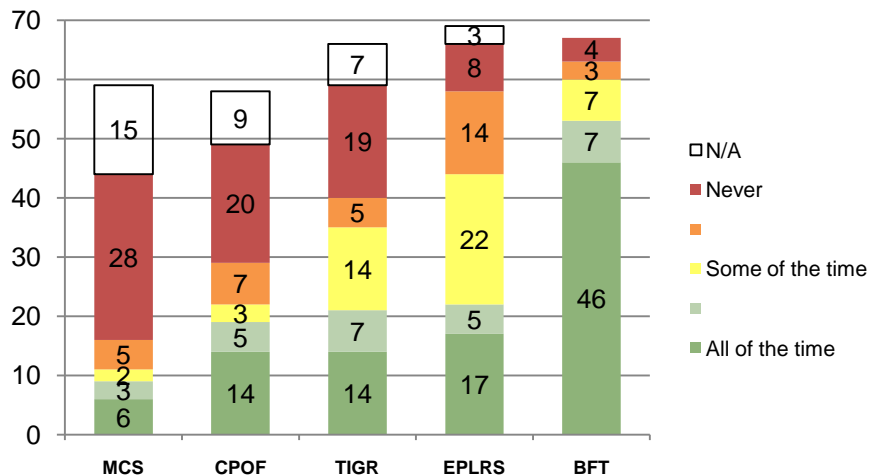
Assessment of Systems - Actual Responses

How well do you think they are working? (4 of 4)

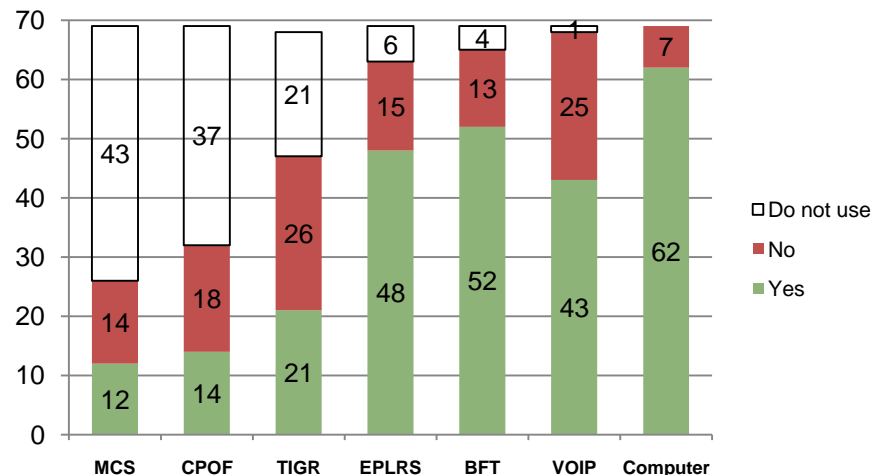
- **Very Well (23%)**
 - Very Well (10)
 - They are very effective.
 - TIGR is working very well for our normal day to day operations.
 - TIGR is working very well in reporting SIGACT and working with data to analyze.
 - FBCB2 does not have a large 'bubble' so that is only applicable to platoon internals. BFT works very well, but sometimes has a delay in messages being sent/received.
 - Great except for the fact that when you need to get a BFT Hard Drive reimaged you need to travel all the way from wherever you are to KAF. This leaves your BFT down for days while you travel from a COP to KAF.
- **Exceptionally Well (5%)**
 - BFT and TIGR are extremely useful.
 - BFT and TIGR have been outstanding.
 - FBCB2 in conjunction with Land Warrior works exceptionally well if both systems are fully operational, great for complex environments and clearing operations. BFT has served as a fairly reliable means of communication throughout the deployment, especially helpful as an alternate communications platform to FM communications.

Frequency of Use and Troubleshooting

How often do you use the following digital systems?

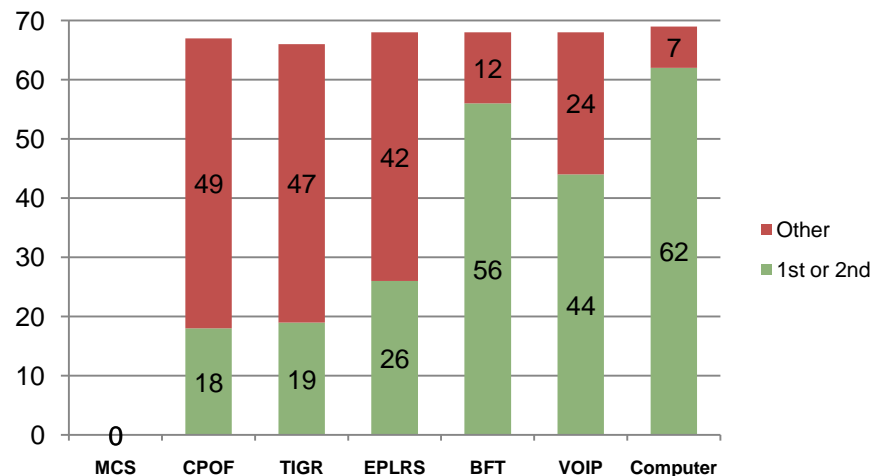


Do you know how to install, operate, maintain, and troubleshoot the digital systems you use on a daily basis?



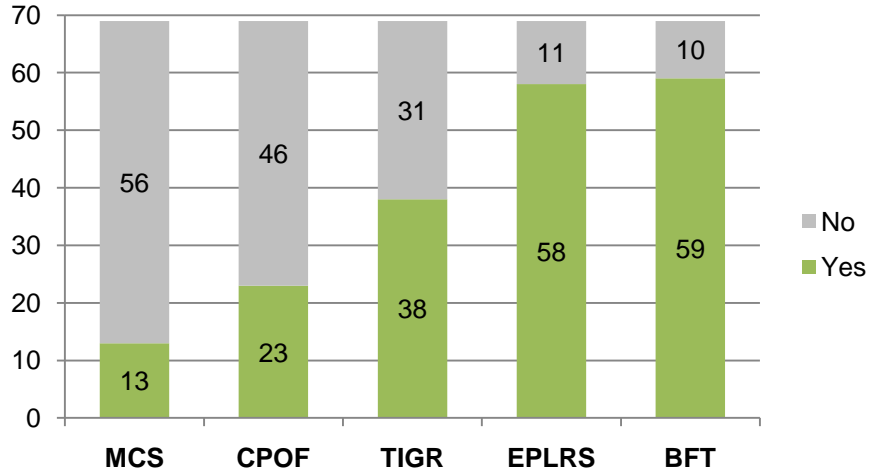
- There were more positive troubleshooting assessments than the number using a system more than “some of the time” – except for CPOF.
- Granting credit for selecting either of the first two steps, the troubleshooting quiz generally supported the assessments – except for FBCB2-EPLRS.
 - There were no answers to the MCS Troubleshooting question.

What is the first step in troubleshooting the following:



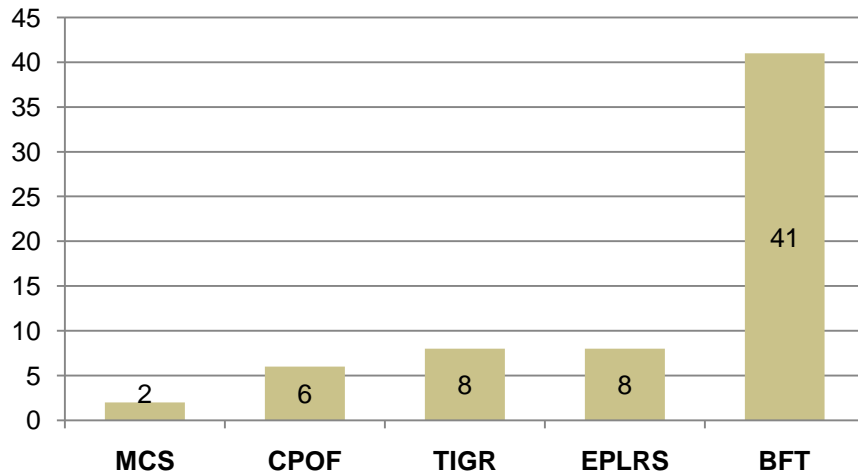
Self-Assessment of System Utilization

Which ABCS systems do you employ?



- Utilization followed expectations with FBCB2-EPLRS, FBCB2-BFT, and TIGR predominating at the Company echelon.

Which ABCS system do you employ the most?



Which ABCS systems do you employ?
Total count of the five listed systems

